Utilitarianism and Inequality

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THE object of this short note is to pose a couple of problems and to .solve none. It is concerned with the choice of planning objectives in general and with measures of inequality in particular.

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The utilitarian approach, especially as used in economic theory, has acquired a reputation for egalitarianism through a peculiar dialectical process. It is obvious that if everyone had the same utility function with diminishing marginal utility and if a given total of homogeneous income were to be divided between the people, then the way to maximise the aggregate welfare sum would be to divide income equally between all. Rather hesitantly utilitarians like Alfred Marshall had played around with this argument, emphasising the imrealism of the assumptions and carefully avoiding any practical egalitarian conclusions. But attacking utilitarianism, Lionel Robbins and others subjected this hypothetical egalitarian conclusion to a lot of fire and essentially through this rather negative process the utilitarian approach developed an egalitarian reputation.

It is indeed strange that an approach which is concerned with maximising the sum of welfare levels of different individuals, *irrespective* of the distribution of these levels, should have developed the reputation of being distribution-conscious and egalitarian. This confusion arises from a simple analytical coincidence. Maximising aggregate welfare out of a given total of income involves equating the marginal utility from income of everyone, and if everyone has the same utility function with diminishing marginal utility, then equating marginal utilities amount to equating total utilities as well. There is nothing particularly egalitarian in equating marginal utilities — it is a condition of maximisaton of the sum irrespective of the distribution — but under the particular assumption made this happens to imply equating absolute levels of welfare as well. What if that particular assumption is dropped? For example, what if one person is supposed to have a utility function that yields values exactly half that of the other? The utilitarian rule would still want to equate marginal utilities, but to satisfy this rule in distributing a given total of income between the two, more income will now have to be given to the second than to the first on the alleged ground of the second's superior enjoyment power. That is, rather than giving more to the first, who would be less well off *even if* income? were equally distributed, the utilitarian rule would recommend the compounding of his deficiency by giving him less income as well! This brings out utilitarianism in its true colour, and demonstrates that far from being egalitarian, it is an approach that will tilt the balance in the direction of greater welfare inequality in the absence of the assumption of a uniform utility function for all.

Of course, much depends on the assumptions of interpersonal comparability and if for some reason it is thought that marginal utilities are fully comparable but total welfare levels are not (because of an arbitrary constant in the utility function), then indeed utilitarianism cannot be demonstrated to be incgalitarian. But this is only because under those circumstances no statement whatsoever can be made about inequalities of welfare levels anyway. Further, it is odd to assume that marginal utilities are comparable but welfare levels are not. Indeed perhaps the only systematic way of thinking about interpersonal comparisons is to ask oneself whether one would prefer to be person 1 (e g, an unemployed unskilled labourer of a certain type) in state x or person 2 (e g, a well paid manager of a particular type) in state y. As a framework of thought, the logic of such interpersonal comparisons have been extensively explored by Patrick Suppes, John Rawls and others, and it is obvious that if this is the framework then comparisons of levels of welfare is *prior* to comparisons of marginal utilities, so that utilitarianism can scarcely take refuge under this umbrella.

Is all this argumentation quite non-operational — a set of bubbles that collapse at the first touch of reality? I should argue that it is not. Any process of economic planning for a country, or any serious political movement, has to be concerned among other things with handicapped people, with the uneducated and the underprivileged, with tlie old and the sick. And a utilitarian framework of thought — however ill-defined and ill-specified as a background — can influence one's thinking in directions that foster real inequality rather than reduce it. What is important in this is not merely the set of formally developed planning models or systems of benefit-cost analysis, but the general approach to these questions, which, however vague, colours one's thinking and action.

A particularly important question for a poor country is the problem of measurement of income inequality. Various statistical measures exist which have been used with data from many countries, including India. The Gini coefficient of the Lorenz distribution is perhaps the most widely used measure, but the variance, the co-effteient of variation, the relative mean deviation, the standard deviation of logarithms and other measures have also been used.[1] How can one judge the appropriateness of these measures? Recently, in a pioneering contribution, A B Atkinson[2] has suggested that these measures should be judged in terms of a social welfare function; corresponding to each person's income y a value of u(y) may be calculated — the same function for all

— and added. It is then checked whether the inequality measures relate inversely to values of aggregate welfare, for a given total of homogeneous income. Atkinson finds that in general these measures do not have this property. Atkinson's results on this are supplemented in a theorem by David Newbery[3] who shows that there can be no additive social welfare function which ranks income distribution in the same order as the Gini co-efficient. How damaging is this result for the much-used Gini co-efficient? It one is wedded to the utilitarian approach, the answer is: very serious indeed. On the other hand, we have argued that the utilitarian approach fails precisely because of its lack of concern with distribution of welfare levels and as such it should be a particularly poor approach to use for judging the appropriateness of inequality measures. It is possible to show that non-additive social welfare functions exist that rank income distribution in precisely the. same order as the Gini co-efficient. The concentration on the additive form and the importance attached to non-correspondence with the maximisation of the welfare sum would appear to be examples of the powerful hold that utilitarianism has on the thinking of economists and policy makers.

To recognise the poorness of the utilitarian approach is important not only for policy making and planning but also for devising the teaching of economics. Since today's students will be making policies tomorrow — or criticising them and raising hell as and when necessary — the concentration on the utilitarian approach in the teaching programme may not be as innocuous as it looks at first sight. The purpose of this short note has been to raise questions about the utilitarian framework of thought both in policy making and in the teaching of economics.

Notes

1 See. for example, P D Ojha and V V Bhatt, 'Pattern of Income Distribution in an Underdeveloped Economy: A Case Study of India", *American Economic Review,* 1964; K H Randive "Pattern of Income Distribution in India, 1953-54 to 1959-60", *Bulletin of Oxford Institute of Statistics,* Vol 30, 1968: N S Iyengar, "Some Measures of Inequality", Fifth Indian Econometric Conference, Delhi, 1965.

2 A 13 Atkinson, "On the Measurement of Inequality", *Journal of Economic Theory,* Vol 2, September 1970.

3 D Newbery, "A Theorem on the Measurement of Inequality", *journal of Economic Theory,* ' Vol 2, September 1970.